

while steaming out of the bay, *en route* for Tunis, I noticed that the smoke at the apex of the mountain was ruddy from the reflection of the lava within the small crater of 1878, and then for many days after, the summit of the mountain was obscured by clouds, and snow lay upon it when I next saw it towards the middle of last January.

G. F. RODWELL

POPULAR NATURAL HISTORY¹

VOLUME II. of this handsomely illustrated work on natural history is equally well got up as the first, which we noticed some months ago; it contains brief histories of the Carnivora, Cetacea, Sirenia, Proboscidea, Hyracoidea, and Ungulata.

The terrestrial, or on-the-land-living Carnivores, are described by Mr. Kitchen Parker, assisted by his son Jeffery. The father's pleasant style and his power of apt illustration will be recognised in the too few pages introductory to this group, and some of the woodcuts are from drawings made by the author. The marine Carnivora, the Whales, and the Sirenia, are described by Dr. Murie, while the editor, with the assistance of Prof. Garrod and Mr. Oakley, describes the Proboscidea, the Hyracoidea, and the Ungulata.

The land carnivora are, undoubtedly, as Mr. Parker tells us, one of the most compact as well as one of the most interesting groups among the mammalia. So many of the animals contained in it have become "familiar in our mouths as household words," bearing as they do an



FIG. 1.—The Bnturong (*Arctictis lenturong*).

important part in fable, in travel, and even in history. Many of them are of wonderful beauty, and many of them are of terrible ferocity. Two she-bears out of the wood tore up the forty and two naughty mocking little children near Bethel, and the narrative thereof frightens our own little children to this day. Packs of enraged lions, "fierce with dark keeping," were by the noble Romans let loose to mangle and devour helpless men and women in the arena, and as for the wolf, what terrible stories are not told about him? He was the very dread of the shepherd in the far distant times. As Mr. Parker reminds us, his bad character for ferocity was so well known in the early days, that "a very old sheep-master, addressing his sons on his death-bed, these sons being

eleven out of twelve of them shepherds, said, knowing they would understand him, of the youngest, 'Benjamin shall raven as a wolf: in the morning he shall devour the prey, and at night he shall divide the spoil.'"

And with all this ferociousness of character, it is from among the number of the land carnivora that man has selected his faithful and devoted follower the dog. For a wonderfully interesting account of this friend of our race, a friend in whom, as Mr. Darwin observes, it is scarcely possible to doubt but that the love of man has become an instinct, an instinct, as Mr. Parker naïvely observes, not as yet certainly developed in man—there is a pleasant chapter, one that tells of what is known of prehistoric dogs, of the origin of the dog, and of the many varieties of the dog.

As an illustration of the general character of the woodcuts which so profusely adorn the volume, we have

¹ "Cassell's Natural History." Edited by P. Martin Duncan, M.B., F.R.S., Professor of Geology, King's College, London. Vol. ii. Illustrated. (London, Paris, and New York: Cassell, Petter, and Galpin.) 4to.

selected one of an interesting animal which has been a great puzzle to the systematic zoologist (Fig. 1).

"The Binturong (*Arctictis binturong*) is a curious little animal of a black colour, with a white border to its ears; it has a large head and a turned-up nose; its tail is immensely long, thick, and tapering, and which is very remarkable, it is prehensile, like that of a new world monkey. It is from twenty-eight to thirty inches in length from the snout to the root of its tail, and the tail itself is nearly the same length. It is quite nocturnal, solitary, and arboreal in its habits. In creeping along the larger branches, it is aided by its prehensile tail. It is omnivorous, eating small animals, birds, insects, and fruits. Its howl is loud. It walks entirely on the soles



FIG. 2.—The Seal asleep.

of its feet, and its claws are not retractile. While it is wild and retiring in its manner, it is said to be easily tamed. It is placed by Mr. Parker among the group of the civets."

In his description of the fur and hair seals, Dr. Murie, as was to be expected, is quite at home, and we have, among other accounts of these wonderful creatures, a long one of that sea lion which lived so long in the London Gardens. This animal seemed to pass its time between sleeping and eating, and we give two out of a series of illustrations which depict its habits—one of it when fast asleep (Fig. 2), the other when it is in "a watchful attitude," waiting to be fed (Fig. 3); it was well known to all visitors to the gardens. It was in the habit of devouring upwards of twenty-five pounds' weight of fish every day, and not thinking this too much. It was originally captured in

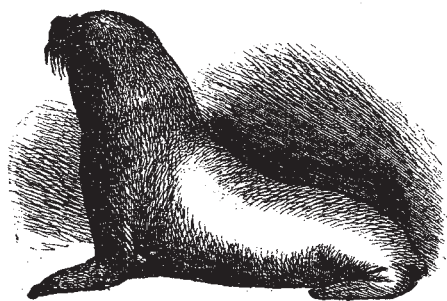


FIG. 3.—Waiting to be fed.

the neighbourhood of Cape Horn; and François Le-comte, the French sailor into whose possession it fell, exhibited the animal for a short time at Buenos Ayres before bringing it to London, where for a short time he earned a living by showing it off. By kindness and dint of training he taught it to become quite a performer in its way. It mounted a ladder with perfect ease, and it could descend either head or tail foremost, so that it seemed a marvel of docility, and its appearance in London seems to have created quite a general interest in the group hitherto so little studied of the eared seals.

The volume concludes with an account of the non-ruminating members of the even-toed sub-order of the Ungulates, embracing the pigs of the Old World, the

peccaries of the New World, and the hippopotami. The next volume will contain a description of the Ruminants, a large and very interesting group. E. P. W.

THE KEITH MEDAL OF THE ROYAL SOCIETY OF EDINBURGH.

ON the 3rd inst., at a meeting of the Royal Society of Edinburgh, the President, Professor Kelland, in presenting the Keith Medal which had been awarded by the Council to Professor Heddle, of St. Andrews, delivered the following address:—"Professor Heddle—I am here to-night to exemplify a remark which is often made, that to insure success in an address, such as I am about to deliver, the best way is to commit the charge of it to one absolutely ignorant of the subject. No false pride will then stand in the way of the best sources of information, nor will any undue admixture of half knowledge clog and darken the truth. For every particular contained in these remarks, then, I at once unhesitatingly acknowledge myself indebted to Professor Geikie. When I first became acquainted with this Society, forty years ago, there used to frequent our meetings men who had the reputation of being mineralogists rather than geologists—Lord Greenock, Allan, and perhaps Jameson himself. That race has now died out, and with them mineralogy, as a distinct science, has all but lain dormant amongst us. During the preceding quarter of a century that science had flourished nowhere more vigorously than in Edinburgh. Professor Jameson introduced the definiteness of system of the Freyberg School, and infused into his pupils such a love of minerals that numerous private cabinets were formed; while under his fostering care the University Museum grew into a large and admirable series. One of my first acts as Professor in the University was to vote out of the Reid Fund, which had just come into our hands, a large sum (some thousands) to pay back moneys expended on minerals throughout a series of years preceding. During these years, Geology, as the science is now understood, hardly existed. For, as the nature and importance of the organic remains embedded in rocks became recognised, their enormous value in the elucidation of geological problems gradually drew observers away from the study of minerals. Consequently, as Palæontology increased, Mineralogy waned among us. To such an extent was the study of minerals neglected, that geologists, even of high reputation, could not distinguish many ordinary varieties. But, as a knowledge of rocks presupposes an acquaintance more or less extensive with minerals, the neglect of mineralogy reacted most disadvantageously on that domain of geology which deals with the composition and structure of rocks. The nomenclature of the rocks of Britain sank into a state of confusion, from which it is now only beginning to recover. To you, Professor Heddle, belongs the merit of having almost alone upheld the mineralogical reputation of your native country during these long years of depression. You have devoted your life to the study, and have made more analyses of minerals than any other observer in Britain. You have not contented yourself with determining their composition and their names; you have gone into almost every parish in the more mountainous regions, have searched them out in their native localities, and, by this means, have studied their geological relations, treasuring up evidences from which to reason regarding their origin and history. After thirty years of continuous work, you have communicated the results of your labours to this Society. For the first two of these papers on the Rhombohedral Carbonates and on the Feldspars, in which you have greatly extended our knowledge of pseudomorphic change among minerals, enunciating a law of the shrinkage so frequently resulting therefrom, the Society proposes now to express its gratitude to you. The value of your papers is undoubted.